Abstract of the Invention

A method and computer program product for forecasting the retail price of electricity for a customer in a deregulated market and for providing probabilistic valuation of costs and risks. The method includes the steps of performing a digital simulation of marginal clearing prices and hourly customer load to derive expected and probabilistic forecasts of load-weighted wholesale prices and costs for a customer; determining a supplier risk premium to be added to the forecasted retail price based on an expected wholesale price volatility, an expected variability of customer load, and a set of contractual conditions governing price structure, volume flexibility, and financial options embedded within a contract; performing a supply price analysis; and presenting the results of the supply price analysis to the customer. The method can also include the steps of performing a cash flow at risk analysis and/or performing a price duration analysis and/or financial valuation of options embedded in supply contracts such as collars (caps/floors) and contract extension options from the supplier or the end-user and combining the results with the results of the supply price analysis.